CLAIMS

What is claimed is:

1. A light pipe comprising:

a lightpipe having a major axis and a first end and a second end;

a light emitting feature having a defined surface located along the length of said lightpipe, wherein said light emitting feature is adapted to transmit electromagnetic energy of a specific visible wavelength of light from inside said lightpipe to outside of said lightpipe.

2. The lightpipe of Claim 1, wherein said light emitting feature is disposed on the surface of said lightpipe.

3. The lightpipe of Claim 1, wherein said light emitting feature comprises a void in said lightpipe, said void comprising the absence of a portion of the lightpipe.

4. The lightpipe of Claim 3, wherein said void has a cross section and a depth.

5. The lightpipe of Claim 4, wherein said cross section of said void is cylindrical.

6. The lightpipe of Claim 4, wherein said cross section of said void is semi-spherical.

7. The lightpipe of Claim 4, wherein said cross section is an angle formed by two planes meeting at an apex forming a line, wherein said angle apex line is perpendicular to said major axis of said lightpipe.

8. The lightpipe of Claim 1, wherein at least a portion of said defined external surface of said light emitting feature is adapted to receive a wavelength specific transmissive filter element

9. The lightpipe of Claim 1, wherein light of a specific visible wavelength is obtained from a laser diode adapted to radiate a substantial portion of said light into either of said first and second end of said lightpipe.

10. The lightpipe of Claim 1, wherein said lightpipe is configured to receive light of a first specific visible wavelength from a first light source into said first end of said lightpipe, and light of a second specific visible wavelength from a second light source into said second end of said lightpipe.

11. A display system, comprising:

a lightpipe with a first end and a second end;

a first source of controllable visible light coupled to said first end of said lightpipe and a second source of controllable visible light coupled to said second end of said lightpipe;

a light emitting feature located along said lightpipe, said light emitting feature adapted to display light from said first source of controllable visible light and to display light from said second source of controllable visible light.

12. The display system of Claim 11, further comprising:

a first polarization element disposed between said first source of controllable visible light; and

a second polarization element disposed between said second source of controllable visible light.

13. The display system of Claim 12 wherein the alignment of said first polarization element is orthogonal to the alignment of said second polarization element.

14. The lightpipe of Claim 11, wherein said light emitting feature is disposed on the surface of said lightpipe.

15. The lightpipe of Claim 11, wherein said light emitting feature comprises a void in said lightpipe, said void comprising the absence of a portion of the lightpipe.

16. The lightpipe of Claim 11, wherein said light emitting feature further comprises:

at least one polarizing element disposed upon a surface of said light emitting feature.

17. A method for reducing the effects of destructive interference in a lightpipe comprising:

providing a first polarizing filter between a first source of visible light and a first end of the lightpipe and disposed in a first orientation;

providing a second polarizing filter between a second source of visible light and a second end of the lightpipe, and disposed in a second orientation that is orthogonal to said first orientation; and

creating a light emitting feature on the lightpipe for transmitting light from said first source of visible light and light from said second source of visible light separately.

18. The method as recited in Claim 17, wherein said creating said light emitting feature comprises removing a portion of the lightpipe.

19. The method as recited in Claim 18 further comprising:

orienting a third polarizing filter that is disposed upon a first surface of said light emitting feature and oriented to pass light from said first source of visible light; and

orienting a fourth polarizing filter that is disposed upon a second surface of said light emitting feature and oriented to pass light from said second source of visible light.

20. The method as recited in Claim 17, wherein said light emitting feature is disposed upon the surface of the lightpipe.